

To: USTF
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Recent Legislation and Regulations

Million Solar Roofs, CA SB1

On Aug. 21, California Senate Bill 1 (SB 1) was signed into law. The bill supplements the California Public Utilities Commission's 10-year, \$2.9 billion California Solar Initiative announced in January 2006. The program's goal is to generate an additional 3,000 megawatts of energy (equivalent to 300 peaking power plants or five modern electric power plants) by installing solar systems on a million homes in the state. In so doing, an estimated 3 million tons of greenhouse emissions will also be eliminated--the equivalent of taking a million cars off the road.

SB1 has four main provisions.

1. It expands the state's solar rebate program to include customers of municipally-owned utilities like the Sacramento Municipal Utility District and the Los Angeles Department of Power and Water. This element is necessary because the CPUC only has control over investor-owned utilities like PG&E. The law allows the program cost to rise to \$3.35 billion to cover rebates for these new customers. At this time, Palo Alto, Santa Clara and Alameda are the only publicly-owned utilities in the Bay Area.
2. SB1 provides long-term, stable funding for solar rebates for the next 10 years, yet mandates that they decline by 7% each year. The goal is to spur the development of a mature, economically-sustainable solar industry by 2015.
3. The law increases the cap on the number of customers that can send their excess power back to utilities, from .5% to 2.5%. Net metering reduces the net cost of a solar system to homeowners, who receive credits for the power they contribute to the grid. Increasing the number of homes generating excess power helps utilities by making more energy available on hot summer afternoons, when demand peaks. The solar energy provided by thousands of new residential customer-producers may ultimately alleviate the need to build new power stations and transmission lines.
4. SB1 mandates that all new residential developments with more than 50 single-family homes offer solar systems as an option, starting in 2011. With 150,000 new homes built every year in California—many of them in previously undeveloped areas, lacking adequate energy transmission and distribution lines—this provision should reduce barriers to solar adoption and potentially reduce demand for new plants. Installing a solar system at the time of construction is estimated to be 25-33% less expensive than retrofitting an existing residence.

The law takes effect on Jan. 1, 2007.

Performance-Based Incentives for the California Solar Initiative, CPUC Regulation

On Aug. 24, the CPUC announced the specific rebate levels that will be offered under the California Solar Initiative starting in Jan. 2007. The incentives vary by size of installation and type of user. Systems larger than 100 kilowatts will be eligible for monthly payments based on the energy actually produced. Smaller systems will receive upfront rebates based on the system's estimated performance. By 2010, all systems greater than 30 kilowatts will be paid based on actual output rather than estimates.

For systems less than 100 kilowatts, incentives start at \$3.25 per estimated watt for governments and non-profits and \$2.50 per watt for residential and commercial users. The latter rate is higher because

those users are eligible for federal tax credits unavailable to public and non-profit users. Governments or non-profits that install large systems (more than 100 kilowatts) will initially receive \$.50 per kilowatt hour actually generated, compared to \$.39 for commercial and residential system owners.

Incentives will drop as more systems come online during the 10-year program. Small government/non-profit systems will decline to \$2.95 per watt after 70 megawatts have been installed under the program, ultimately dropping to a \$.70 per watt rebate. For large systems, the incentive drops from \$.50 per kilowatt produced to \$.46 after the first 70 megawatts of the program, ultimately declining to \$.10 per kilowatt.

California Global Warming Solutions Act, CA AB32

AB32 was passed and signed into law with great fanfare in early September. It imposes new controls on stationary sources of green house gas emissions with the goal of reducing the state's emissions to 1990 levels by the year 2020. Using both incentives and market-based mechanisms, mandatory reductions will be imposed starting in 2012.

The California Air Resources Board (ARB) is the agency charged with enforcing AB32. The Board must establish 1990 baseline emission levels, set emission reduction targets by industry and establish a monitoring system. The ARB is also the enforcement agency.

The law will roll out in several phases. The ARB must:

- develop a list of early action measures to reduce short-term emissions (by June 30, 2007)
- identify the 1990 baseline level of emissions and adopt regulations to create a statewide emissions reporting and monitoring system (by Jan. 1, 2008)
- develop a plan to meet the 2020 goals in the most cost-effective manner possible (by Jan. 1, 2009)
- adopt the early action measures referenced above (by Jan. 1, 2010)
- announce specific regulations to achieve emissions reductions (by Jan. 1, 2011)
- begin enforce declining emissions targets (by Jan. 1, 2012)

ARB has discretion to use market-based mechanisms like an emissions cap-and-trade system, as long as it is designed to prevent any increase in the emission of toxic or criteria air pollution.

The ARB's regulations must:

- not disproportionately affect low-income communities
- complement (not interfere with) efforts to meet federal and state air quality standards and reduce toxic air pollution emissions
- minimize leakage outside California's borders (i.e. have a decrease in CA emissions offset by increases out of state)
- ensure that the reductions are real, permanent, quantifiable, verifiable and enforceable
- count only new reductions that would not otherwise occur

An emergency provision allows the Governor to adjust certain deadlines for the regulations "in the event of extraordinary circumstances, catastrophic events or threat of significant economic harm" to the earliest feasible date. Any adjustment is capped at 12 months at a time.

A legal challenge is expected.